

**In the Claims**

Please amend the claims as follows:

- 1-16. (Canceled)
17. (Previously Presented) The method of claim 28 wherein the nucleic acid sample comprises genomic DNA.
18. (Previously Presented) The method of claim 28 wherein the nucleic acid sample is cDNA.
19. (Previously Presented) The method of claim 28 wherein the amplified DNA is subjected to electrophoresis in step b).
- 20-27. (Canceled)
28. (Currently Amended) A method to detect a polymorphism in a human TLR4 gene, comprising: detecting or determining whether amplified TLR4 DNA obtained from a human nucleic acid sample comprises nucleic acid encoding TLR4 polypeptide having an amino acid substitution at residue 299 or 399 of TLR4, wherein the amplified TLR4 DNA is obtained by contacting an amount of the nucleic acid sample with an amount of at least one TLR4-specific oligonucleotide under conditions effective to amplify TLR4 DNA having SEQ ID NO:62, the complement thereof, or a portion thereof, and wherein the TLR4-specific oligonucleotide comprises at least two nucleotide substitutions which result in a restriction site that is indicative of a polymorphism in a human TLR4 gene, which polymorphism results in a TLR4 gene that encodes a TLR4 polypeptide with an amino acid substitution at residue 299 or 399.
- 29-31. (Canceled)

32. (Previously Presented) The method of claim 28 wherein the nucleic acid in the sample encodes an amino acid substitution at residue 299.
33. (Previously Presented) The method of claim 28 wherein the oligonucleotide comprises SEQ ID NO:66 or SEQ ID NO:67.
34. (Previously Presented) The method of claim 28 wherein the nucleic acid in the sample encodes an amino acid substitution at residue 399.
35. (Previously Presented) The method of claim 28 wherein the oligonucleotide comprises SEQ ID NO:68 or SEQ ID NO:69.
36. (Previously Presented) The method of claim 32 wherein the substitution at residue 299 is glycine for aspartic acid.
37. (Previously Presented) The method of claim 34 wherein the amino acid substitution at residue 399 is isoleucine for threonine.
38. (Previously Presented) The method of claim 28 wherein at least two TLR4 specific oligonucleotides are contacted with the sample.
39. (Previously Presented) The method of claim 38 wherein one of the TLR4 specific oligonucleotides is SEQ ID NO:12, SEQ ID NO:18, SEQ ID NO:24, SEQ ID NO:30, SEQ ID NO:36, SEQ ID NO:42, SEQ ID NO:48, SEQ ID NO:54, SEQ ID NO:13, SEQ ID NO:19, SEQ ID NO:25, SEQ ID NO:31, SEQ ID NO:37, SEQ ID NO:43, SEQ ID NO:49, SEQ ID NO:55, SEQ ID NO:14, SEQ ID NO:20, SEQ ID NO:26, SEQ ID NO:32, SEQ ID NO:38, SEQ ID NO:44, SEQ ID NO:50, SEQ ID NO:56, SEQ ID NO:15, SEQ ID NO:21, SEQ ID NO:27, SEQ ID NO:33, SEQ ID NO:39, SEQ ID NO:45, SEQ ID NO:51, SEQ ID NO:57, SEQ ID NO:16, SEQ ID NO:22, SEQ ID NO:28, SEQ ID NO:34, SEQ ID NO:40, SEQ ID NO:46, SEQ ID NO:52, SEQ ID

NO:58, SEQ ID NO:17, SEQ ID NO:23, SEQ ID NO:29, SEQ ID NO:35, SEQ ID NO:41, SEQ ID NO:47, SEQ ID NO:53 or SEQ ID NO:59.

40. (Previously Presented) The method of claim 28 wherein an amino acid substitution at residue 299 or 399 is indicative of a human at risk of or having an indication associated with altered innate immunity.